Abstract

The laminated zeolite composite of the present invention is characterized in that it comprises a MFI membrane being constituted by a MFI type zeolite and having a SiO_2/Al_2O_3 (molar ratio) of 40 to 100, and a porous substrate being constituted by a MFI type zeolite and having a SiO_2/Al_2O_3 (molar ratio) of 20 to 400, and that the MFI membrane is formed on the porous substrate. The composite has high separation characteristic and high permeability.